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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/987,849	12/09/1997	JOHN V. MCLAIN JR.	COS-97-033	6786

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WORLDCOM, INC.
TECHNOLOGY LAW DEPARTMENT
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WASHINGTON, DC 20036

EXAMINER

LAO, SUE X

ART UNIT	PAPER NUMBER
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2126

DATE MAILED: 10/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
08/987,849

Applicant(s)
McLain, Jr. et al

Examiner
S. Lao

Art Unit
2151



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Aug 6, 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above, claim(s) 7-13 and 15-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

DETAILED ACTION

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1-18 are pending. This is in response to applicant's response filed 8/6/2002 to the restriction requirement re-mailed 7/5/2002. Applicant has elected to prosecute invention I, consisting of claims 1-6 and 14. Claims 7-13 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

3. It is noted that the newly added linking claims 15-18 were not presented in invention I, consisting of claims 1-6 and 14, when the restriction requirement was made, and therefore they are grouped with the non-elected invention II.

4. Applicant recited a number of co-pending applications by the attorney docket numbers on pages 1-2. Please update the attorney docket numbers into U. S. application serial numbers / patent numbers.

5. Applicant provided a list of 10 co-pending applications on pages 1-2. These are not checked. Applicant is invited to inform the examiner if any of the co-pending applications are particularly relevant to / conflicting with the current application. Applicant is required to maintain a clear line of demarcation between applications. See MPEP § 822.

6. Claims 4 and 18 are objected to because of the following informalities: Claims 4 and 18 recite "the first and second current *instruction*" on lines 1-2 and on line 1, respectively, which appears to be "the first and second current *instructions*" (emphasis added). Appropriate correction is required.

7. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 recites "the computer graphics system" and "the single copy" on lines 6 and 22, respectively. There are insufficient antecedent bases for these limitations in the claim. For the purpose of art rejection, these are interpreted as "the computer system" and "a single copy", as best understood and as they appear to be.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-3, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burgess (U S Pat. 5,652,888) in view of Gamma et al (Design Patterns, Singleton Pattern, pages 127-134).

As to claim 1, Burgess teaches a method for managing computer system resources (invoke target objects in a windowing environment), comprising the steps of

(1) generating a first command control vector for a first input message (message/event, e.g., LineUp, from parent window), the first command control vector identifying (713) a method object (connection manager CObject) that contains one or more

instructions for processing the first input message (send the message by invoking NotifyEvent of target object / child window) [col. 8, line 46 - col. 11, line 12];

(2) generating a second command control vector associated with a second input message (message/event, e.g., Value), the second command control vector identifying the same method object (connection manager CObject) identified by the first command control vector, the method object containing one or more instructions for processing the second input message (send the message by invoking NotifyEvent of target object / child window) [col. 8, line 46 - col. 11, line 12];

(4) processing the first and second input messages using the same method object (send the message by invoking NotifyEvent of target object / child window).

While Burgess always uses the same method object (connection manager CObject) to process different messages (col. 9, lines 1-2, 10-11), Burgess does not teach to provide only a single copy of the method object.

Gamma teaches object creation, including creating a class (singleton) to provide only a single copy of the class object (class having one instance). See page 127-128. Gamma further teaches a typical application of the singleton object creational pattern is to make a window manager into a single copy/instance (page 127, section Motivation). Given the teaching of Gamma, it would have been obvious to provide a single copy of the method object (a window manager) of Burgess.

As to claims 2 and 3, Burgess teaches identifying a communication link from which the first input message is received (pointer to the source object), a destination device for which the message is intended (pointer to the target object), identifying the method object (identified member function of the target object), (d) identifying a first current instruction used to process the input message (pointer to the target member function). See col. 4, lines 19-54; col. 7, lines 3-54. Burgess uses this logic to process all the messages / command control vectors, including the first and the second. Note the discussion of claim 1 for identifying the same method object.

As to claim 14, it is a program product claim of claim 1. Note claim 1 for discussion.

10. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burgess in view of Gamma et al as applied to claim 1 and further in view of author admitted prior art APA (page 2, line 25 - page 3, line 20)

As to claim 4, APA teaches a method object invoking a script (page 2, line 29). Given the teaching of APA, it would have been obvious to implement a method object of Burgess with a script. Note discussion of claim 1 for a single copy. The combined teachings would have provided a single copy of a script. The motivations to combine the teachings includes the following. Burgess teaches GUI objects which are typically used in a morden windowing environment. To one of ordinary skill in the art, a morden windowing environment is often a multi-tasking system which requires interrupt mechanisms to provide the preemption. Burgess does not provide such a mechanism. APA, on the other hand, provides an interrupt mechanism (timer interrupt) to provide multi-tasking. Therefore, one of ordinary skill in the art would have been motivated to use the interrupt mechanism of APA to achieve multi-tasking in Burgess.

11. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burgess in view of Gamma et al and APA as applied to claim 4 and further in view of Carr et al ("Compiling Distributed C++").

As to claim 5, Burgess as modified teaches (APA) identifying current script instructions in the first and second command control vectors for processing the first and second input messages, respectively (pointer to identify next instruction to execute within a method object) (APA, page 3, lines 9-14). Note discussion of claim 4 for the method object invoking a script. Burgess as modified does not teach steps (ii) and (iii).

Carr teaches using a data object (value object) to store data generated during execution (return values) of a C++ program (pages 499-500, section 6). Given the teaching of Carr, it would have been obvious to use first/second data objects to store data generated during execution of first/second command control vectors in the C++ implementation of Burgess. It would have been obvious to combine the teachings of Burgess as modified by Gamma and Carr because the former implements the teaching in

language C++ (col. 3, lines 16-19) and the latter details one version of the language C++ (section 1).

As to claim 6, APA teaches processing a number n of logical units of instructions for a first type (process one type of instructions); interrupting such processing (timer interrupt); and processing a number m of logical units of instructions for a second type. See page 3, lines 3-8. Given the teaching of APA, it would have been obvious to alternate the processing of the first message / first command control vector and the processing of the second message / second command control vector. Note discussion of claim 4 for a motivation to combine.

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sue Lao whose telephone number is (703) 305-9657. A voice mail service is also available at this number. The examiner's supervisor, SPE Alvin Oberley, can be reached on (703) 305 9716. The examiner can normally be reached on Monday - Friday, from 9AM to 5PM. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7238 for After Final communications, (703) 746-7239 for Official communications and (703) 746-7240 for Non-Official/Draft communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.

Sue Lao



October 8, 2002